

Work Order ID 115520

115520

Page 1

April-02-14 1:21:08 PM

Item ID: D412-742-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

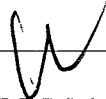
Start Date: 4/02/14 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 4/11/14 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan:  Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Base Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3391	I								

100 Document Control 0.00

100

DC

DOCUMENT CONTROL

Memo

0.00

Control -USB or Paperwork

If D412-742-041 is a W/O on it's own,
Photocopy bluefile and create labels per PPP D412-742-041 CHG005

N/A M13 1407-24

Work Order ID 115520

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Item ID: D412-742-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Stop

NS2

Start Date: 4/02/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/11/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Dwg. Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Assemble as per dwg HandFinishing	0.00				1x	1	40	4/02/14
110	HandFinish								
Hand Finishing	Memo 1-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment. using 7/16" "T" Pins. A/RSikaflex-241/-291 <u>14129457</u> Expiry date: <u>14 11</u> 2-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Seal all bolts with sikaflex except ones with inserts on inside of tube ,hand tighten only bolts with no sikaflex. A/RSikaflex-241/-291 <u>14129458</u> Expiry date: <u>14 11</u> 3-Remove "T" pins once sikaflex is dry. 4-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser. A/RLPS Procyon <u>14122900</u>	0.00							
120	QC5- Inspect part completeness to step on W/O	0.00							
120	QC								
Quality Control	Memo DAS 27 9-69 14/7/14	0.00							

DQA:

Date:

14/08/01



QA Closed:

Date:

14/7/28

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order: <u>155520</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D412-742-041</u>		Skid-tube ☒ Machining ☐ Thermoforming ☐ Large Fab ☐	Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐
NCR No. <u>14-4064</u>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design				Found at Assembly that	DAS		DAS		DAS
Doc/Data				23591-1 Bushings ARE TWO	12	Acceptable	12	DAS	16
Equip/Tooling				houses when installed.	9-89		9-89	27	9-89
Handling/Pre	14/04/23	110	41	the 0.499 holes have been	14/7/11	B3551-1 B121446	14/7/11	14/7/14	14/04/23
Material				Reamed to 0.510" - 0.508"		Bushings press fit properly.			
Operator									
Offset/Setup									
Process	☒								
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General
☐ Bending	☐ Bend
☐ Centre Not Concentric	☐ BOM/Route
☐ Cracks	☐ Broken/Damage/Defect
☐ Crimp/Kink/Ripple/Wave	☐ Burrs
☐ Cuffs	☐ Contamination
☐ Crushing	☐ Countersink
☐ Heat Treat	☐ Cut Too Short
☐ Inspection Strip in Tube	☐ Drawing
☐ Marks/Chatter	☐ Drill Holes
☐ Turning Sequence	☐ Finish
☐ Wave/Twist in Tube	☐ Fit/Function
	☐ Folio/Program
	☐ Grain
	☐ Hardware
	☐ Inspection Incomplete/Unqualified
	☐ Instructions Incomplete/Unclear
	☐ Misaligned/off center
	☐ Mislabeled
	☐ Misread
	☐ Off-set
	☐ Out of Calibration
	☐ Out of Sequence
	☐ Outside Dimensions
	☐ Over/Under tolerance
	☐ Part Incorrect
	☐ Part Lost/Missing
	☐ Part Moved
	☐ Positioned Wrong
	☐ Power Loss/Surge
	☒ Other
	<u>process</u>

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Item ID: D412-742-041

Accept

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Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Stop ***NS2***

Start Date: 4/02/14 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 4/11/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-742-041								
	Location: _____								
	PPP Rev: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

JUL 23 2014

DAS
06
9-89

PP JUL 23 2014 122233

MLJ 14-07-24

4-7-23

Picklist Print

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Page 1

Work Order ID: 115520

115520

Parent Item: D412-742-041

D412-742-041

Parent Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Start Date: 4/02/14

Required Date: 4/11/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev A 05.10.13 New Issue KJ/JLM
IPP Rev 06.02.13 ECN 773 dwg @ rev.D EC
IPP Rev:C 07-05-28 As per Rev F JLM
IPP rev D 07.11.01 ecn 1053p EC
IPP rev E 07.11.27 ecn 1072 EC verified by:DD
IPP Rev:F 08-09-08 ecn 08-510 DD verified by:EC IPP Rev:G
10.02.24 as per ECN10-514 DD verified by: EC IPP Rev:H 11.11.01 as
per DSI9517 REV.B DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3391-013 *D3391-013* Mid Tube Assembly		Manufactured	No				Each	0.0000		1			
									**	B110422(1x) Hl 14/04/09			
D3391-011 *D3391-011* Fwd Tube Assembly		Manufactured	No			110	Each	0.0000	1	1			
									**	B106150(1x) Hl 14/04/09			
D3391-015 *D3391-015* Aft Tube Assembly		Manufactured	No			110	Each	0.0000	1	1			
									**	B111888(1x) Hl 14/04/09			

Picklist Print

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Parent Item: D412-742-041

D412-742-041

Parent Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Start Date: 4/02/14

Required Date: 4/11/14

AN3C4A

Purchased

No

110

Each

Start Qty: 1.00
2,158.000 24 24

Required Qty: 1.00

AN3C4A

Bolt

**

11/10/14

Location

Loc Qty

Loc Code

FG

20

M128739

x24

122814

20

ST350/513

1000

M128606

1000

ST512

3

124221

3

ST513

1135

125388

72

M127410

1

M127832

62

M128634

1000

AN3C6A

Purchased

No

110

Each

365.0000 10 10

AN3C6A

Bolt

**

11/10/14

Location

Loc Qty

Loc Code

FG

10

122416

10

ST351

12

m128224

12

ST513

343

m125709

343

x10

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Shop Packet Print

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Parent Item: D412-742-041

D412-742-041

Parent Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Start Date: 4/02/14

Required Date: 4/11/14

AN3C7A Purchased No 110 Each 863.0000 Start Qty: 1.00 4 4 Required Qty: 1.00

AN3C7A

Bolt

**

11/04/09

Location Loc Qty Loc Code

FG 10

122141 10

ST513 853

m125709 853

NAS1149C0332R Purchased No 110 Each 9,570.000 38 38

NAS1149C0332R

WASHER

**

11/04/09

Location Loc Qty Loc Code

GA 981

125654 981

ST292 4968

m128591 4968

st510 3621

m126319 61

m127306 2500

m127410 1034

m127831 26

MS27039C4-12 Purchased No 110 Each 174.0000 4 4

MS27039C4-12

SCREW

**

11/04/09

Location Loc Qty Loc Code

ST308 174

124586 174

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Work Order ID: 115520

115520

Parent Item: D412-742-041

D412-742-041

Parent Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical
Float Compatible

Start Date: 4/02/14

Required Date: 4/11/14

D3672-3

Manufactured No

110

Each

Start Qty: 1.00
1,635.000 4 4

Required Qty: 1.00

D3672-3

Phenolic Washer

**

all in stock

Location

Loc Qty

Loc Code

FG	111	
84432	11	
89273	100	
FP001	63	
107316	63	<i>✓</i>
ST060	1460	
110251	8	
112455	500	
113746	952	
ST061	1	
93925	1	

NAS1149C0432R

Purchased No

110

Each

4,206.000 4 4

NAS1149C0432R

WASHER

**

all in stock

Location

Loc Qty

Loc Code

GA	1719	
m125807	1719	
ST292	92	
119124	6	
121255	7	
122441	79	
ST510a	2395	
m126221	2395	<i>✓</i>

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Shop Packet Print

Page 4

Picklist Print

April-02-14 1:21:07 PM

Page 5

Work Order ID: 115520

115520

Parent Item: D412-742-041

D412-742-041

Parent Item Name: Replacement Skidtube (Fits LH or RH) High Gear Apical & Oem Cylindrical Float Compatible

Start Date: 4/02/14

Required Date: 4/11/14

D4095-041

Manufactured No

110

Each

14.0000

Start Qty: 1.00

Required Qty: 1.00

1 1

D4095-041

Wearplate Assembly

**

all w/04/09

Location

Loc Qty

Loc Code

FP002

14

109667

5

112409

9

D4095-043

Manufactured No

110

Each

9.0000

1

1

D4095-043

Wearplate Assembly

**

all w/04/09

Location

Loc Qty

Loc Code

FP002

9

111932

9

D4095-045

Manufactured No

110

Each

12.0000

1

1

D4095-045

Wearplate Assembly

**

all w/04/09

Location

Loc Qty

Loc Code

FP002

12

108288

1

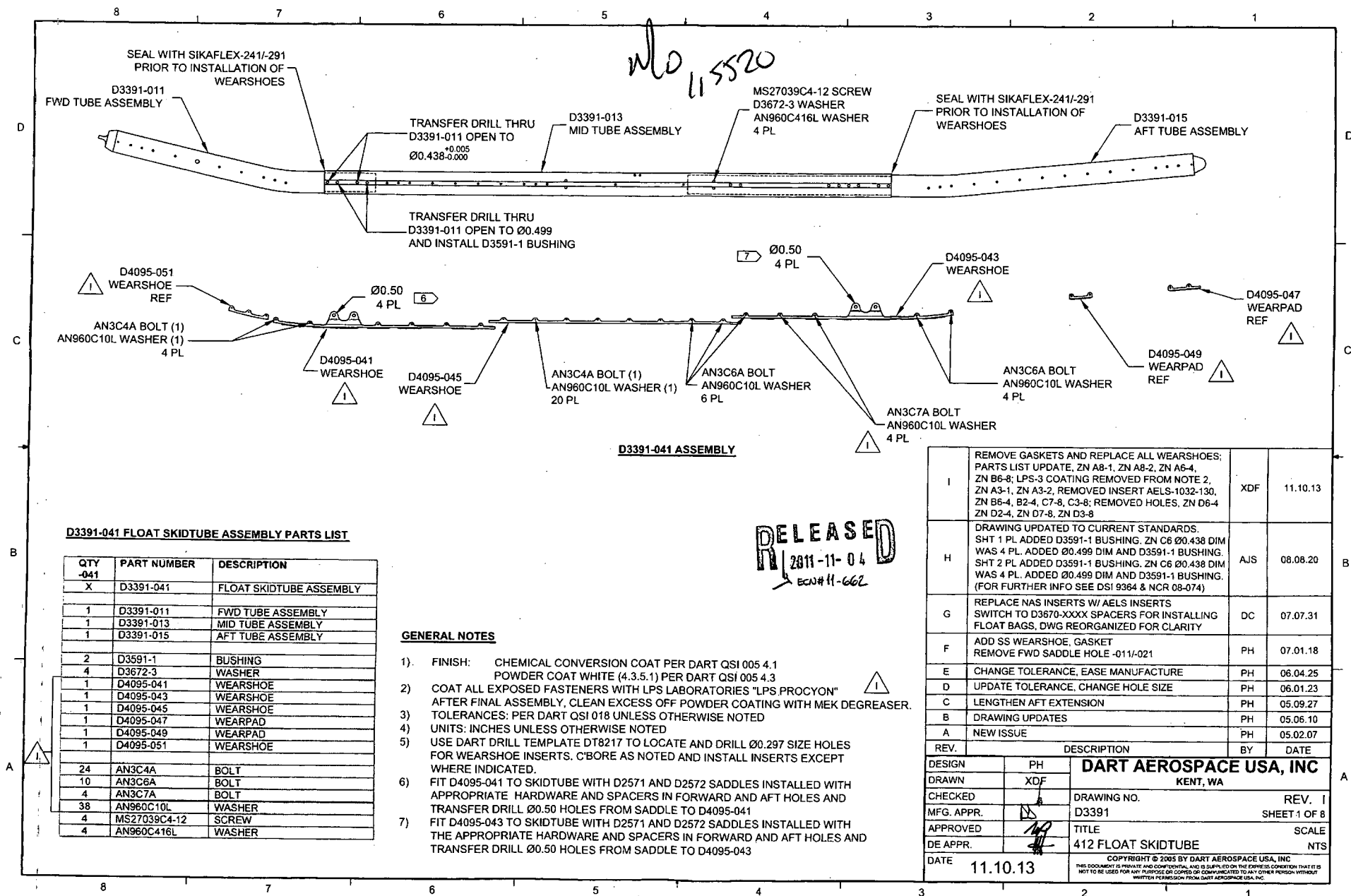
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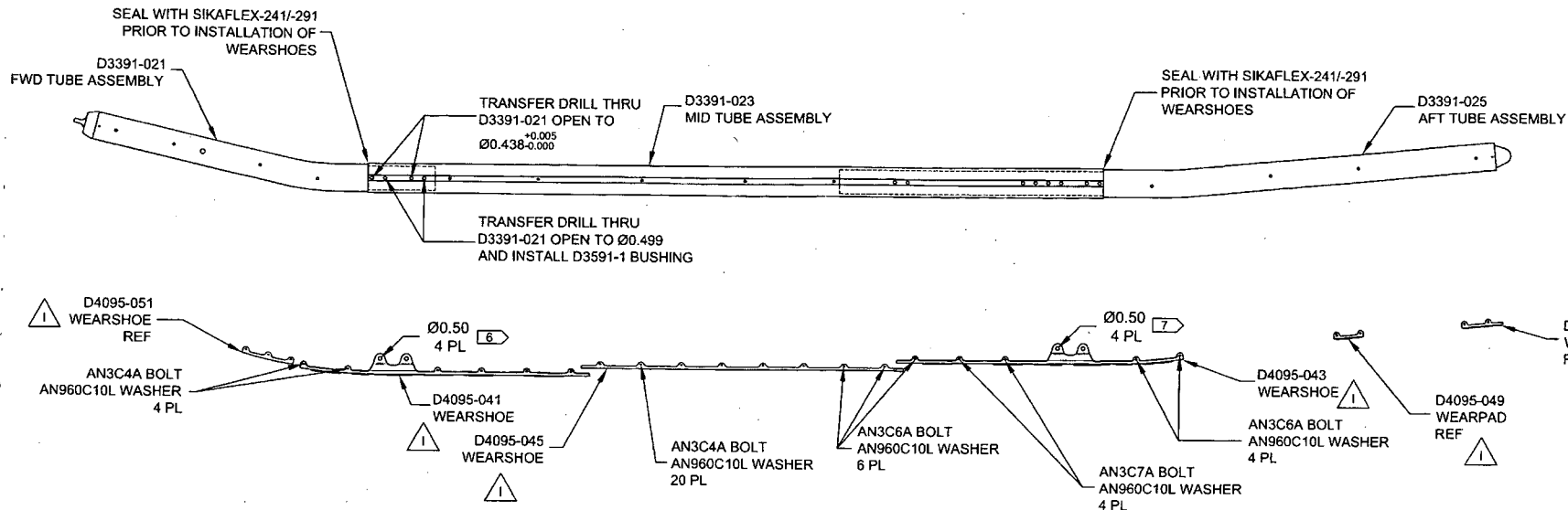
4

112308

7

Y1





D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

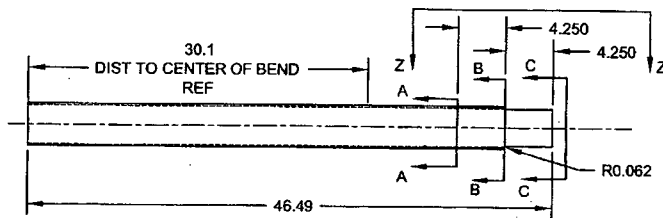
QTY	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARSHOE
1	D4095-049	WEARSHOE
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER

GENERAL NOTES

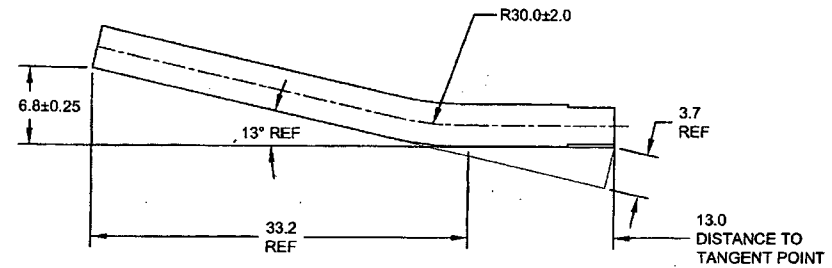
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

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2011-11-04

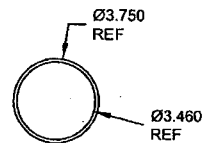
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DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D3391	SHEET 2 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



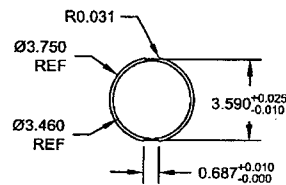
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



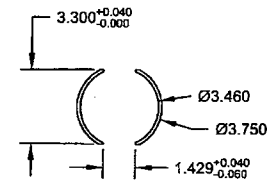
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



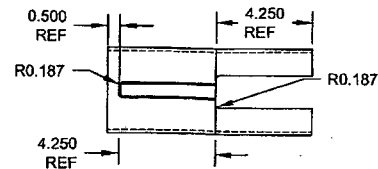
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SECTION B-B
SCALE 2X



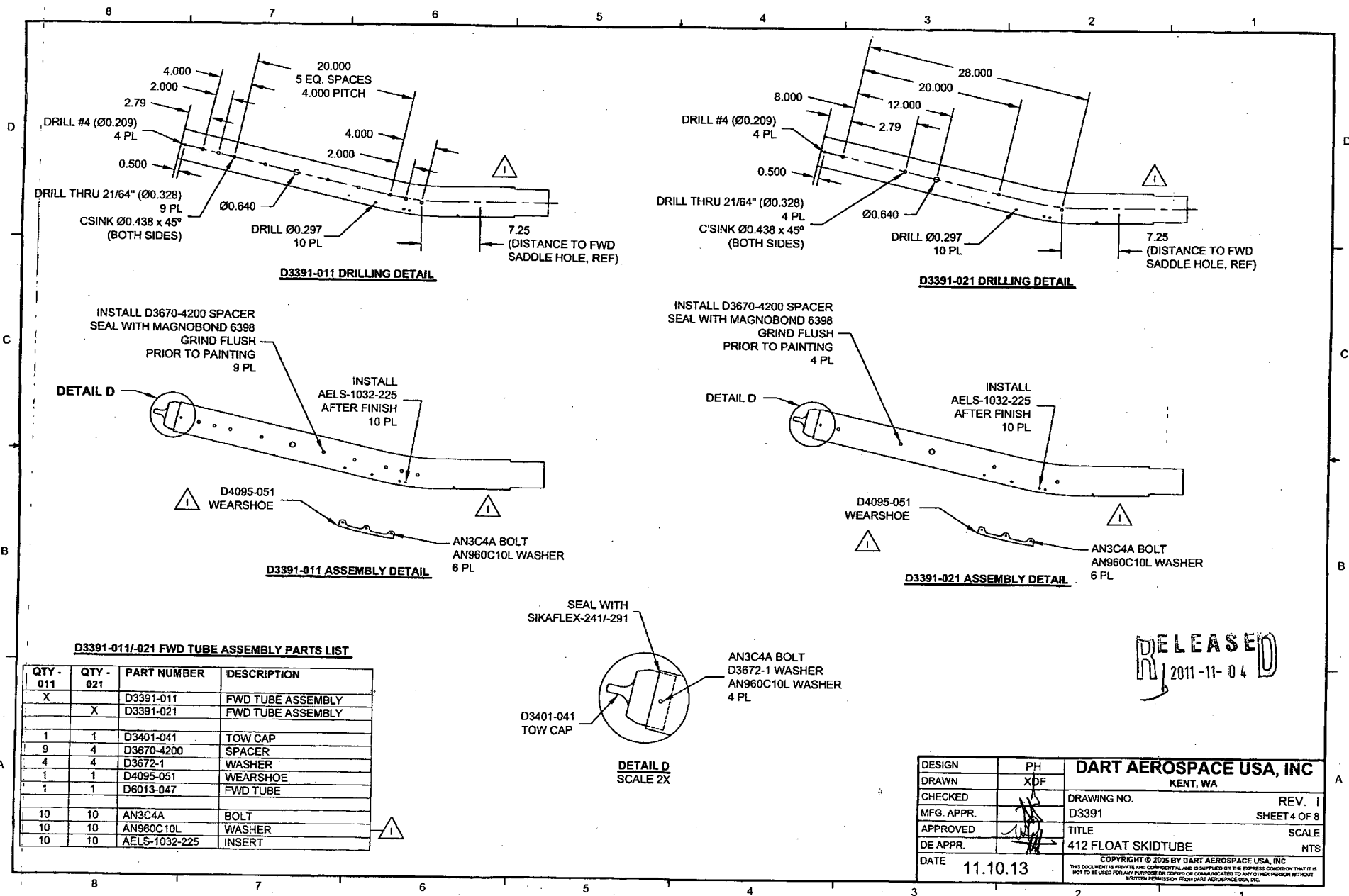
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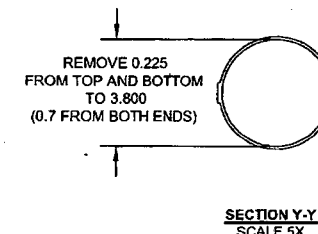
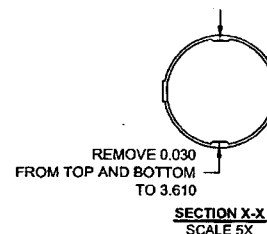
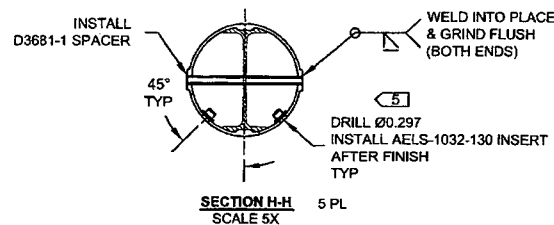
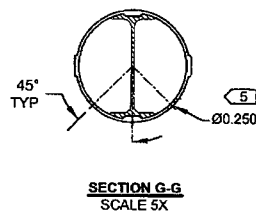
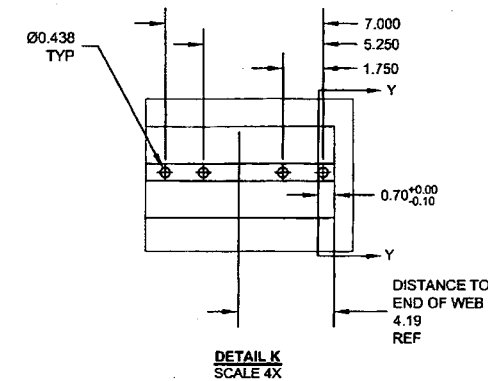
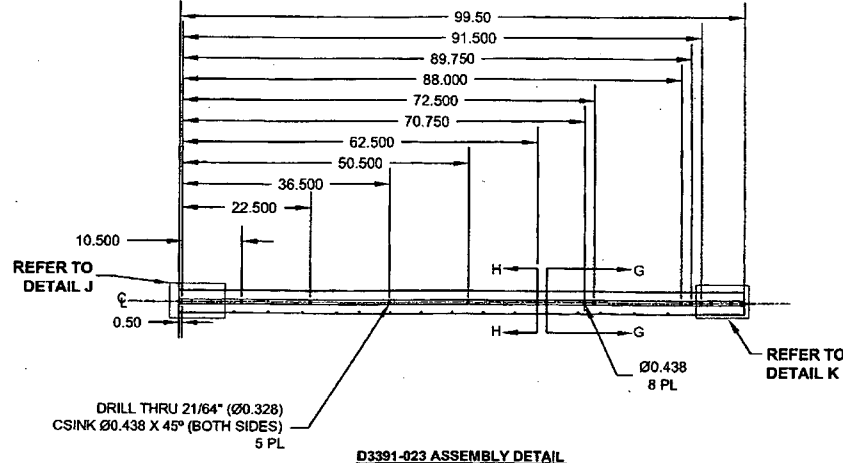
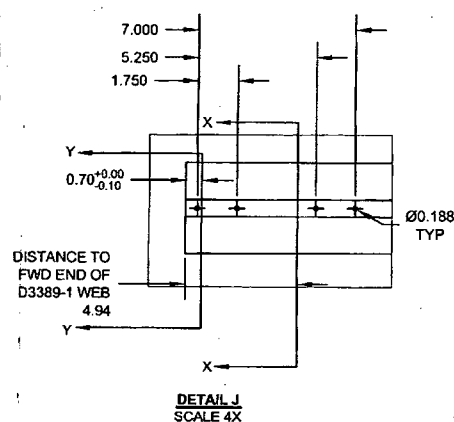


VIEW Z-Z
SCALE 2X

RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC	
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CHECKED		DRAWING NO. D3391	REV. 1
MFG. APPR.			SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	





D3391-023 MID TUBE ASSEMBLY PARTS LIST

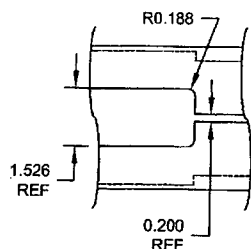
QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

D3391-023 MID TUBE ASSEMBLY

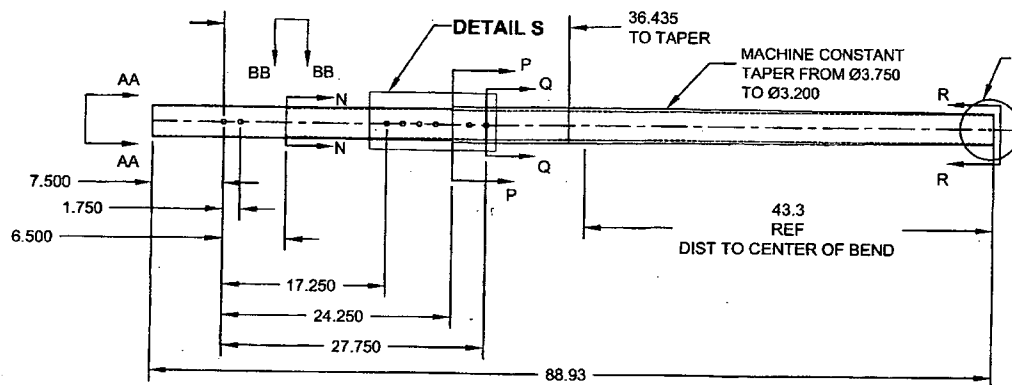
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- 3) WELDING: PER DART QSI 004

RELEASED
2011-11-04

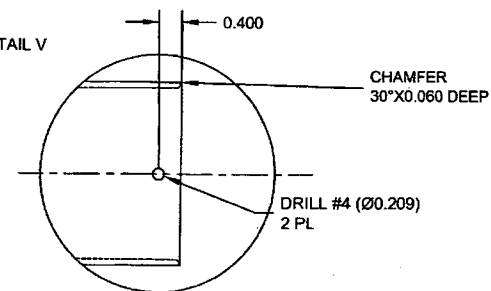
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DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 6 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



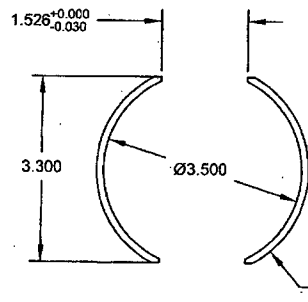
VIEW BB-BB
SCALE 4X



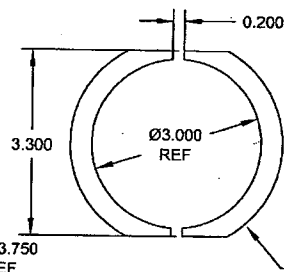
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



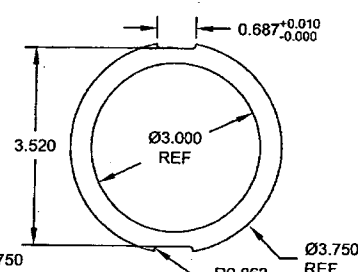
DETAIL V
SCALE 6X



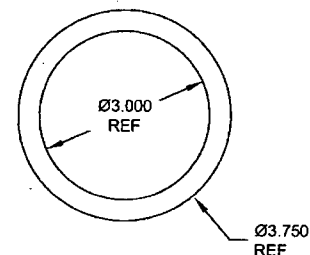
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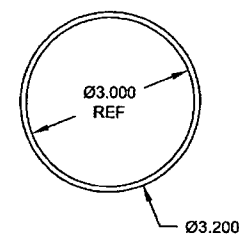
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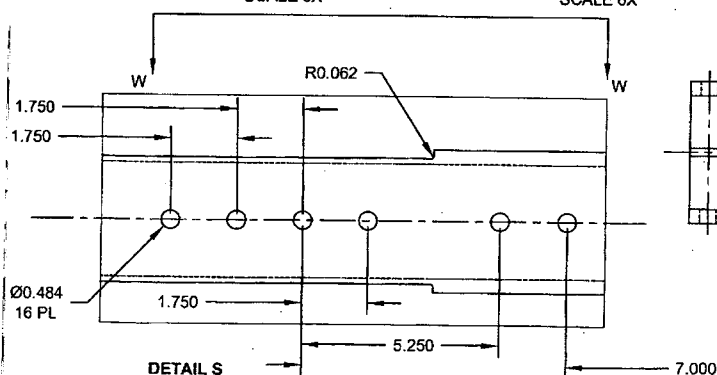
SECTION P-P
SCALE 6X



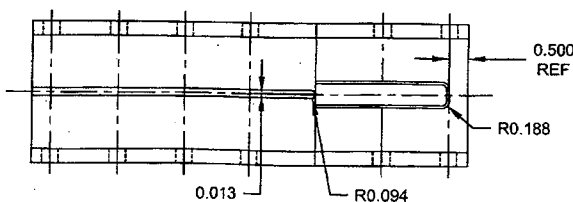
SECTION Q-Q
SCALE 6X



SECTION R-R
SCALE 6X



DETAIL S
SCALE 4X



VIEW W-W
SCALE 4X

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2011-11-04

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